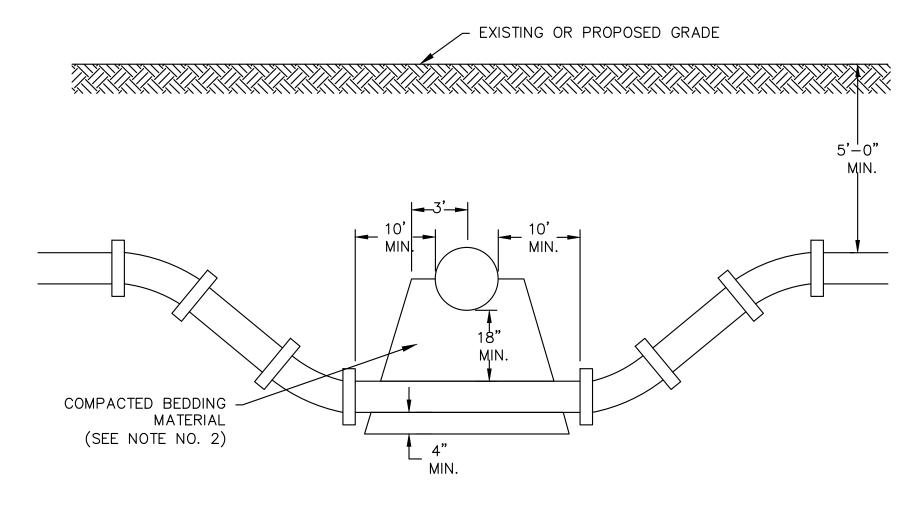


B TYPICAL HYDRANT DETAIL

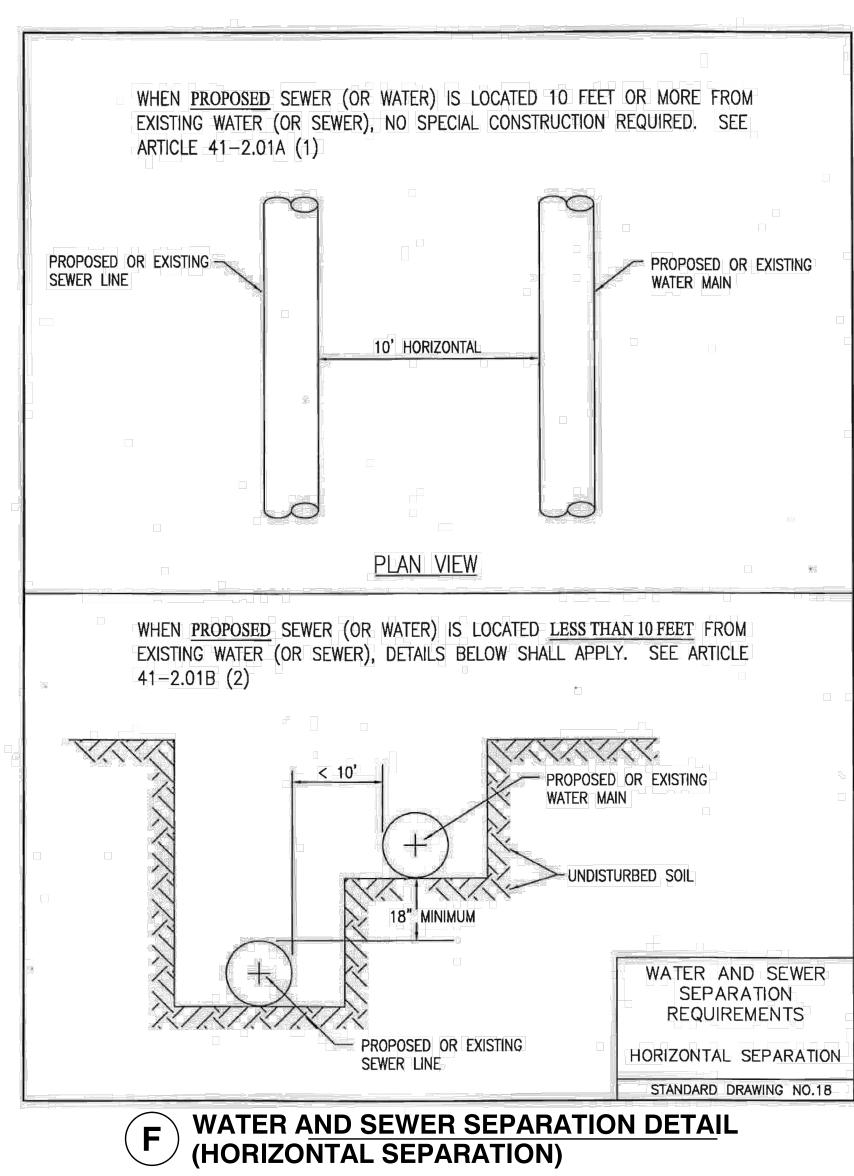
NOT TO SCALE

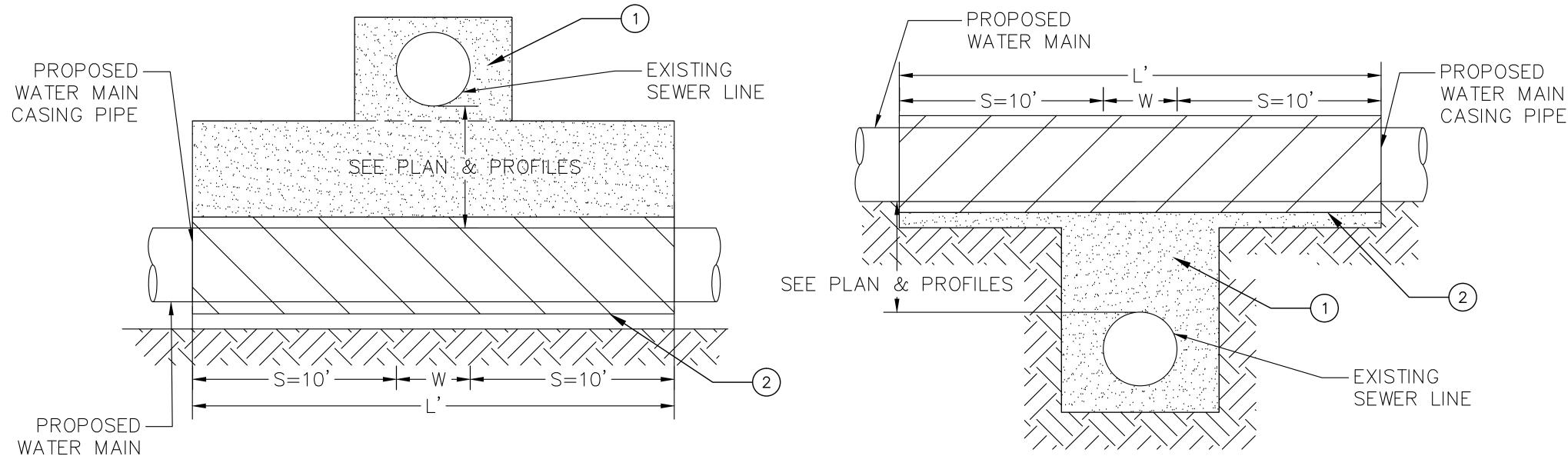


- NOTES:

 1. IF FITTINGS ARE USED, CONTINUOUS STRAPPING WITH RODS, STRAPS, NUTS AND BOLTS BELOW NORMAL WATER MAIN DEPTH ARE REQUIRED OR RETAINER GLANDS MAY BE USED IN LIEU OF STRAPPING. RETAINER GLANDS TO BE CLOW NO. F—1058, OR APPROVED EQUAL. REFER TO STRAPPING WATER MAIN 6" THRU 16" DETAIL ON SHEET PH2 CU401.
- 2. COMPACTED MATERIAL BELOW SEWER SHALL CONFORM TO STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS.
- 3. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWERS SHALL COMPLY WITH SECTION 41-2.01 OF THE STANDARD SPECIFICATIONS FOR SEWERS AND WATER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.







NOTES:

- 1. "S" SHALL BE MEASURED PERPENDICULAR TO THE EXISTING
- SEWER LINE.
 2. "W" IS THE WIDTH OF THE EXISTING SEWER LINE IN FEET.
- 3. "L" IS THE LENGTH OF THE CASING PIPE.4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER

KEYED NOTES:

MAIN CASING PIPE AND SEWER.

- 1. REMOVE THE EXISTING BACKFILL MATERIAL FROM THE FULL WIDTH OF THE EXISTING SEWER LINE TRENCH AND REPLACE TO ONE (1) FOOT OVER TOP OF THE WATER MAIN WITH BEDDING AND HAUNCHING MATERIAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. REPLACE REMAINING TRENCH WITH FINAL BACKFILL MATERIAL. COMPACT EACH MATERIAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 2. CASING PIPE LENGTH (L) SHALL BE EQUAL TO L=2XS+W AND SHALL BE SEALED AT BOTH ENDS OF THE CASING.

ALL WATERMAIN INSTALLED BENEATH GRAVITY SEWERS SHALL BE INSTALLED IN A CASING PIPE OR THE GRAVITY SEWER SHALL BE REPLACED WITH PRESSURE RATED PIPING.

C VERTICAL WATER AND SEWER SEPARATION DETAIL (TYPICALLY APPLICABLE TO SHALLOW EXISTING SEWERS)

NOTES:

- 1. "S" SHALL BE MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.
- 2. "W" IS THE WIDTH OF THE EXISTING SEWER LINE IN FEET.
- 3. "L" IS THE LENGTH OF THE CASING PIPE.4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER

MAIN CASING PIPE AND SEWER.

KEYED NOTES:

- 1. REMOVE THE EXISTING BACKFILL MATERIAL FROM THE FULL WIDTH OF THE EXISTING SEWER LINE TRENCH AND REPLACE TO ONE (1) FOOT OVER TOP OF THE WATER MAIN WITH BEDDING AND HAUNCHING MATERIAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. REPLACE REMAINING TRENCH WITH FINAL BACKFILL MATERIAL. COMPACT EACH MATERIAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 2. CASING PIPE LENGTH (L) SHALL BE EQUAL TO L= 2XS+W AND SHALL BE SEALED AT BOTH ENDS OF THE CASING.

ALL WATERMAIN INSTALLED ABOVE GRAVITY SEWERS SHALL BE INSTALLED WITH 2' OF VERTICAL SEPARATION. IF 2' OF VERTICAL SEPARATION CANNOT BE MAINTAINED WATERMAIN SHALL BE INSTALLED IN A CASING PIPE OR THE GRAVITY SEWER SHALL BE REPLACED WITH PRESSURE RATED PIPING.

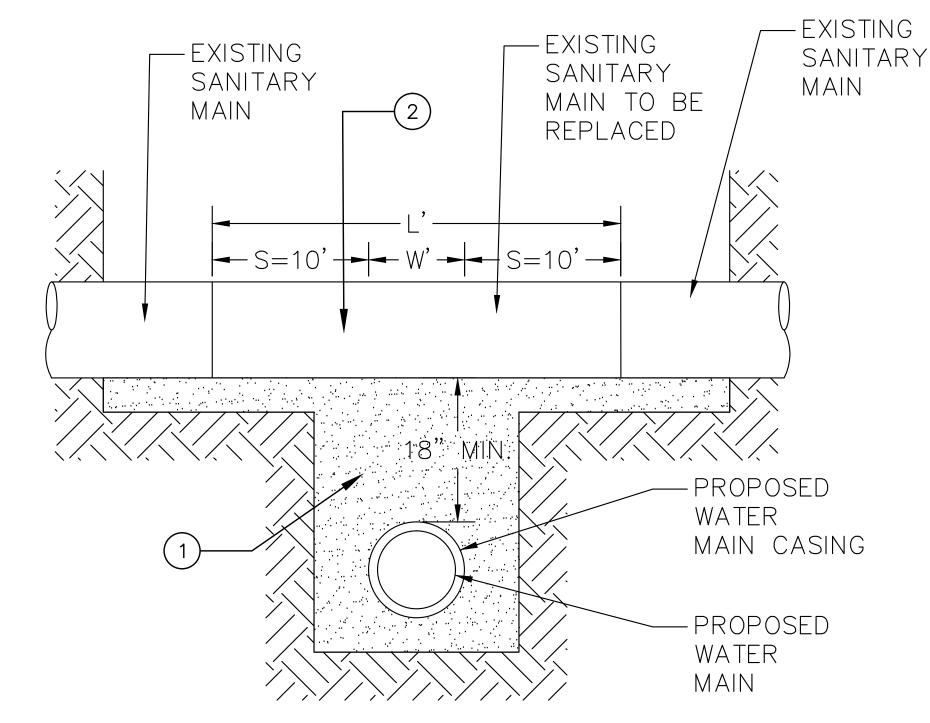
VERTICAL WATER AND SEWER SEPARATION DETAIL (TYPICALLY APPLICABLE TO EXISTING DEEP SEWERS)

NOTES:

- 1. "S" SHALL BE MEASURED PERPENDICULAR TO THE EXISTING
- SEWER LINE.
 2. "W" IS THE WIDTH OF WATER MAIN IN FEET.
- 3. "L" IS THE LENGTH OF THE SEWER TO REPLACE.4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN AND SEWER.
- 5. REFER TO DETAIL C ON SHEET CU400 FOR CASING PIPE REQUIREMENTS.
- 6. ALL GRAVITY SEWER (INCLUDING SERVICES) CROSSING WHERE THE WATER MAINS OR WATER SERVICES ARE LESS THAN 24" ABOVE THE SEWER VERTICALLY SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE AND SHALL CONFORM WITH THE LATEST REVISION OF ASTM SPECIFICATION D2241 SDR 26, (160 PSI). JOINTS SHALL CONFORM TO ASTM D3139 AND ELASTOMERIC GASKETS SHALL CONFORM TO ASTM F 477.

KEYED NOTES:

- 1. REMOVE THE EXISTING BACKFILL MATERIAL FROM THE FULL WIDTH OF THE EXISTING SEWER LINE TRENCH AND REPLACE TO ONE (1) FOOT OVER TOP OF THE WATER MAIN WITH BEDDING AND HAUNCHING MATERIAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. REPLACE REMAINING TRENCH WITH FINAL BACKFILL MATERIAL. COMPACT EACH MATERIAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 2. SEWER REPLACEMENT LENGTH (L) SHALL BE EQUAL TO L= 2XS+W.



SEWER REPLACEMENT DETAIL

